

Response
Serial No. 09/450,054
Page 2

IN THE CLAIMS

sb017

1. (Previously Amended) A network for distributing a power signal in an optoelectronic circuit, said network comprising:

- a plurality of electrically conductive pathways forming at least one level, wherein portions of said conductive pathways are interconnected;
- a plurality of segments forming each level, wherein each segment of a level is equal in length;
- means for coupling said power signal from a primary input to a point at the center of a first level;
- terminal nodes coupled at the extremities of a last level for supplying said power signal to a plurality of devices that form at least a portion of said optoelectronic circuit; and

wherein the number of segments connecting said primary input to each of said terminal nodes is equal.

2

2. (Previously Amended) The network of claim 1 wherein each level is at least one H-shaped pattern comprising first and second parallel branches each having a respective first and second midpoint, and a third branch interconnecting said first and second midpoints, and wherein said center of said H-shaped pattern is the midpoint of said third branch.

3. (Previously Amended) The network of claim 1 wherein each level is at least one X-shaped pattern comprising first and second branches each having a respective first and second midpoint and interconnecting said first and second branches at said midpoints, and wherein said center of said X-shaped pattern is the intersection of said first and second branches.

4. (Previously Amended) The network of claim 1 wherein said network is located on an optoelectronic chip.

Response
Serial No. 09/450,054
Page 3

DI
contd

5. (Previously Amended) The network of claim 1 wherein said terminal nodes are optoelectronic devices.

6. (Previously Amended) The network of claim 1 wherein said terminal nodes are VCSELs.

7. (Previously Amended) A network for distributing a power signal in an optoelectronic circuit, said network comprising:

U

a plurality of separate electrically conductive pathways forming at least one level, wherein said pathways are joined only at a common point;

a plurality of segments forming each level, wherein each segment of a level is equal in length;

means for coupling said power signal from a primary input to a point at the center of a first level;

terminal nodes coupled at the extremities of a last level for supplying said power signal to a plurality of devices that form at least a portion of said optoelectronic circuit; and

wherein the number of segments connecting said primary input to each of said terminal nodes is equal.

8. (Previously Amended) The network of claim 7 wherein each level is at least one H-shaped pattern comprising first and second parallel branches each having a respective first and second midpoint, and a third branch interconnecting said first and second midpoints, and wherein said center of said H-shaped pattern is the midpoint of said third branch.

9. (Previously Amended) The network of claim 7 wherein each level is at least one X-shaped pattern comprising first and second branches each having a respective first and second midpoint and interconnecting said first and second

Response
Serial No. 09/450,054
Page 4

branches at said midpoints, and wherein said center of said X-shaped pattern is the intersection of said first and second branches.

DI
contd

10. (Previously Amended) A method of distributing a power signal to a plurality of terminal nodes on an optoelectronic circuit, the method comprising the steps of:

CI
cancel

(receiving the power signal from a primary input) and directing said power signal to said plurality of terminal nodes using an H-tree network, said H-tree network including at least one level, wherein a first level is coupled to said primary input and a last level includes said plurality of terminal nodes for supplying said power signal to a plurality of devices, each of said at least one level having a plurality of segments, each segment of a respective plurality is equal in length; and

wherein a number of segments from said primary input to each of said terminal nodes is equal.

11. (Original) The method of claim 10, wherein the directing step further includes directing said power signal to said plurality of terminal nodes using an H-tree network,

wherein said plurality of segments are configured into at least one H pattern to form said at least one level; and

wherein said at least one level is configured into a hierarchical succession of H patterns.